

REMARKS

Claims 1-23 are pending in the application. Of these claims, claims 1, 5, 10, 14, 16, 17, 18, 21 and 23 are in independent form. Claims 1-23 have been rejected under §102(b) as being anticipated by U.S. Patent No. 5,555,462 (Fukumoto et. al.). For the following reasons, Applicant respectfully traverses this rejection.

Independent Claims 1, 10 and 16

One of the features recited in the present invention defined by claims 1, 10, and 16 is that a modified target value of a feed-amount of the printing medium is calculated based on a target value of a feed-amount of the printing medium and a previous stop position of the printing medium detected by the position counter, and a counted value of the position counter is set to the modified target value.

Accordingly, the paper-feed control offers precise paper feeding so that a sheet of paper is stopped at a target position (see specification at page 14, lines 33-35).

On the contrary, Fukumoto teaches a feeding amount deviation calculator (52) which periodically calculates a deviation in the amount of feeding of the sheet relative to a reference feeding amount. This is achieved using a follower roller (41) which is in contact with the sheet to calculate the actual feeding amount. A sensor (43) generates an output signal each time the follower roller rotates a predetermined amount. (see ABSTRACT).

In other words, Fukumoto teaches calculating the deviation in the amount of the sheet feed relative to a reference feeding amount when the sheet is feeding.

Fukumoto does not teach or suggest that a modified target value of a feed-amount of the printing medium is calculated based on a target value of a feed-amount of the printing medium

and a previous stop position of the printing medium detected by the position counter, and that a counted value of the position counter is set to the modified target value.

Therefore, unlike the present invention, in Fukumoto, the paper-feed control does not offer precise paper feeding so that a sheet of paper is stopped at a target position.

Consequently, claims 1, 10 and 16 distinguish over Fukumoto, and they and their dependent claims are in condition for allowance.

Independent Claims 5, 14 and 17

One of the features recited in the present invention defined by claims 5, 14 and 17 is that a modified target position of the printing medium is calculated based on a target value of a feed-amount of the printing medium at a present motor start-up, another target value of a feed-amount of the printing medium at a previous motor start-up, and a position of the printing medium detected by the position detecting part just before the present motor start-up.

Accordingly, the paper-feed control offers precise paper feeding so that a sheet of paper is stopped at a target.

On the contrary, as noted above, Fukumoto teaches the deviation in the amount of the sheet relative to a reference feeding amount when the sheet is feeding.

In addition, Fukumoto does not teach or suggest that a modified target position of the printing medium is calculated based on a target value of a feed-amount of the printing medium at the present motor start-up, another target value of a feed-amount of the printing medium at a previous motor start-up, and a position of the printing medium detected by the position detecting part just before the present motor start-up.

Therefore, unlike the present invention, in Fukumoto, the paper-feed control does not offer precise paper feeding so that a sheet of paper is stopped at a target position.

Consequently, claims 5, 14 and 17 distinguish over Fukumoto, and they and their dependent claims are in condition for allowance.

Independent Claim 18

One of the features recited in the present invention defined by claim 18 is that the driving part starts the paper-feed motor based on the current value signal when the paper-feed motor is stopped.

Accordingly, the paper-feed control offers precise paper feeding so that a sheet of paper is stopped at a target.

On the contrary, Fukumoto teaches the deviation in the amount of the sheet relative to a reference feeding amount when the sheet is feeding.

Fukumoto does not teach or suggest that the driving part starts the paper-feed motor based on the current value signal when the paper-feed motor is stopped.

Therefore, unlike the present invention, in Fukumoto, the paper-feed motor control does not offer precise paper feeding so that a sheet of paper is stopped at a target position.

Consequently, claim 18 distinguishes over Fukumoto, and claim 18 and its dependent claims are in condition for allowance.

Independent Claims 21 and 23

One of the features recited in the present invention defined by claim 21 and 23 is that deviation, while a paper-feed motor is stopping, of an actual feed-amount of a sheet of paper is calculated based on output pulses of an encoder that rotates to follow rotation of a paper-feed motor from a target feed-amount of the sheet of paper at a previous motor start-up.

Accordingly, the paper-feed control offers precise paper feeding so that a sheet of paper is stopped at a target.

On the contrary, Fukumoto teaches the deviation in the amount of the sheet relative to a reference feeding amount when the sheet is feeding.

As noted above, Fukumoto does not teach or suggest that the deviation, while a paper-feed motor is stopping, of an actual feed-amount of a sheet of paper is calculated based on output pulses of an encoder that rotates to follow rotation of a paper-feed motor from a target feed-amount of the sheet of paper at a previous motor start-up.

Therefore, unlike the present invention, in Fukumoto, the paper-feed control does not offer precise paper feeding so that a sheet of paper is stopped at a target position.


Consequently, claims 21 and 23 distinguish over Fukumoto, and they and their dependent claims are in condition for allowance.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/651,096

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